CLAIMS

1. A rotary transformer-type resolver comprising:

an inner core on which a rotary transformer output winding is wound, wherein the inner core is adapted to receive a rotary shaft;

a resolver rotor on which resolver excitation windings are wound;

a spacer, which is located between the inner core and the resolver rotor, wherein a fixing groove is formed in the spacer, and a crossover, which connects said rotary transformer output winding and said resolver excitation windings, extends between said inner core and said resolver rotor and is accommodated by the fixing groove;

a flange formed on the inner core between the spacer and the rotary transformer output winding, wherein a cutout groove, which accommodates the crossover, is formed in the flange, and wherein the cutout groove and the fixing groove are aligned in the axial direction of the resolver, and wherein the spacer and the inner core are formed as a unit, and a space, which extends in the axial direction, is formed between the spacer and the flange.

2. The rotary transformer-type resolver according to claim 1, wherein an outer core, on which a rotary transformer input winding is wound, is located radially outward of the inner core, and the axial dimension of the flange is greater than the corresponding axial dimension of a corresponding part of the outer core.

3. The rotary transformer-type resolver according to claim 1, wherein the inner core and the spacer are formed by a lamination of metal plates.

4. The rotary transformer-type resolver according to claim 3, wherein at least one metal plate of the lamination has a smaller diameter than metal plates of the lamination that form the flange and the spacer to create the space.

5. A rotary transformer-type resolver comprising:

an inner core on which a rotary transformer output winding is wound, wherein the inner core is adapted to be secured to a rotary shaft;

a resolver rotor on which resolver excitation windings are wound, wherein the rotor is separated from the inner core in the axial direction of the resolver;

a spacer, which is located between the inner core and the resolver rotor, wherein the spacer and the inner core are part of a unitary structure;

a flange formed on the inner core between the spacer and the rotary transformer output winding, wherein a space is formed, which extends in the axial direction of the resolver, between the spacer and the flange.

6. The rotary transformer-type resolver according to claim 5, wherein an outer core, on which a rotary transformer input winding is wound, is located radially outward of the inner core, and the axial dimension of the flange is greater than the corresponding axial dimension of a corresponding part of the outer core.

7. The rotary transformer-type resolver according to claim 5, wherein the inner core and the spacer are formed by a lamination of metal plates.

8. The rotary transformer-type resolver according to claim 7, wherein at least one metal plate of the lamination has a smaller diameter than metal plates of the lamination that form the flange and the spacer to create the space.

9. The rotary transformer-type resolver according to claim 5, wherein:

a crossover wire connects the rotary transformer output winding and the resolver excitation windings;

a fixing groove is formed in the spacer;

a cutout groove is formed in the flange; and

the crossover wire is fitted in the fixing groove and the cutout groove.

10. A rotary transformer-type resolver comprising:

an inner core on which a rotary transformer output winding is wound, wherein the inner core is adapted to be secured to a rotary shaft;

a resolver rotor on which resolver excitation windings are wound, wherein the rotor is separated from the inner core in the axial direction of the resolver;

a spacer, which is located between the inner core and the resolver rotor, wherein the spacer and the inner core are part of a unitary structure that is formed by a lamination of metal plates;

a flange formed on the inner core between the spacer and the rotary transformer output winding, wherein a space is formed, which extends in the axial direction of the resolver, between the spacer and the flange; and

a crossover wire, which connects the rotary transformer output winding and the resolver excitation windings.

11. The rotary transformer-type resolver according to claim 10, wherein an outer core, on which a rotary transformer input winding is wound, is located radially outward of the inner core, and the axial dimension of the flange is greater than the corresponding axial dimension of a corresponding part of the outer core.

12. The rotary transformer-type resolver according to claim 10, wherein at least one metal plate of the lamination has a smaller

diameter than metal plates of the lamination that form the flange and the spacer to create the space.

13. The rotary transformer-type resolver according to claim 10, wherein:

a fixing groove is formed in the spacer;

a cutout groove is formed in the flange; and

the crossover wire is fitted in the fixing groove and the cutout groove.